

OP - SF NET - Volume 15, Number 6 – November 15, 2008

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The Electronic News Net of the
SIAM Activity Group on Orthogonal Polynomials and Special Functions
<http://math.nist.gov/opsf/>

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5. On q-exponentials which are not q-series
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Calendar of Events:

December 11-12, 2008

Special Functions and Quantum Groups, A Symposium in Honor of Tom
Koorwinder, University of Amsterdam, The Netherlands 15.5, #1
<http://staff.science.uva.nl/~jstokman/SymposiumTom.html>

December 15-16, 2008

Rolling Waves in Leuven - a workshop on the occasion of Adhemar Bultheel's 60th
Birthday, Leuven, Belgium 15.2, #2
<http://www.cs.kuleuven.be/~raf/ade2008/>

March 21-24, 2009

Workshop "Approximation Theory and Signal Analysis"
dedicated to Professor Paul Leo Butzer on the occasion of his 80th birthday
Lindau (Lake Constance), Germany 15.6, #2
atsa@helmholtz-muenchen.de

March 25-30, 2009

Random Matrices and Integrability: From Theory to Application, Yad
Hashmona, Israel
<http://www.hit.ac.il/staff/kanzieper/yad8>

April 13-25, 2009

CIMPA-Unesco-Tunisia School "Analytical and Probabilistic Aspects of Dunkl
Theory", Monastir, Tunisia 15,5 #6
<http://www.cimpa-icpam.org/Anglais/2009Prog/Tunisia09.html>

April 19--26, 2009

NoDIA-2009: Nonlinear Differential Equations, Integrability and Applications -
Cape Town, South Africa.
<http://www.sm.luth.se/~norbert/nodia09.html>

June 8-12, 2009

Sixth International Conference on Computational Methods and Function Theory,
Ankara, Turkey. 15.4 #2
<http://www.bilkent.edu.tr/~cmft/>

June 14-20, 2009

47th International Symposium on Functional Equations Gargnano, Italy.
GianLuigi.Forti@mat.unimi.it

June 15-18, 2009

3rd International Conference on Mathematics & Statistics, Athens, Greece
<http://www.atiner.gr/docs/Mathematics.htm>

June 25-28, 2009

International Conference on Applied Analysis and Scientific Computation
Shanghai Normal University, Shanghai, China 15.5 #4
<http://mathsc.shnu.edu.cn/conference/index.htm>

June 29 - July 3, 2009

Workshop "Discrete systems and special functions", Newton Institute for
Mathematical Sciences, Cambridge, UK. 15.5 #9
<http://www.newton.ac.uk/programmes/DIS/ws.htm>

July 20-24, 2009

FPSAC'09 -21st Annual International Conference on
Formal Power Series and Algebraic Combinatorics, Hagenberg, Austria
15.5 #3
<http://www.risc.jku.at/conferences/fpsac2009>

July 20-25, 2009

10th Symposium on Orthogonal Polynomials, Special Functions and Applications
(OPSFA-10) , Leuven, Belgium 15.5 #2
<http://wis.kuleuven.be/OPSFA/OPSFA10.html>

September 4-9, 2009

2nd Dolomites Workshop on Constructive Approximation and Applications"
(DWCAA09), Alba di Canazei (Trento), Italy
<http://www.math.unipd.it/~dwcaa09>

Topic #1 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors
Subject: Report on Vancouver Special Session

During the 2008 Fall Western Section Meeting of the American Mathematical Society held in Vancouver, Canada, October 4-5, 2008 there was a Special Session on Special Functions and Orthogonal Polynomials organized by Mizanur Rahman and Diego Dominici. There were 14 talks in various areas and an animated discussion at the end. A few (the ones that came out well!) pictures taken during the meeting at
<http://www.math.tu-berlin.de/~dominici//CV/vancouver.html>

Topic #2 ----- OP-SF NET 15.6 ----- November 15, 2008

From: atsa@helmholtz-muenchen.de
Subject: Workshop "Approximation Theory and Signal Analysis"

This is the first announcement for the workshop

"APPROXIMATION THEORY AND SIGNAL ANALYSIS"

organized by the Institute of Biomathematics and Biometry at the Helmholtz Center Munich. The workshop will take place at the Hotel "Bayerischer Hof" in Lindau (Lake Constance), Germany on on March 21-24, 2009.

The workshop is dedicated to Professor Paul Leo Butzer on the occasion of his 80th birthday.

The aim of the workshop is to bring together researchers from the various areas of Approximation Theory and Signal Analysis and to stimulate a fruitful research atmosphere.

The workshop program consists of invited one-hour lectures and contributed 25-minute talks. The one hour lectures will be given by

Karlheinz Groechenig, Universität Wien, Austria
Mourad E. H. Ismail, University of Central Florida, U.S.A.
Hrushikesh N. Mhaskar, California State University, Los Angeles, U.S.A.
Paul Nevai, Ohio State University, Columbus, U.S.A.

Winfried Sickel, Friedrich-Schiller Universität Jena, Germany
Rudolf Stens, RWTH Aachen, Germany
Walter Trebels, Technische Universität Darmstadt, Germany

Further information on the workshop including accommodation, travel directions, etc. will be available soon on a web page which is currently in preparation. If you have any question please contact

atsa@helmholtz-muenchen.de

We would like to invite you to contribute to the workshop.

Sincerely yours,
Wolfgang zu Castell
Frank Filbir
Rupert Lasser
Juergen Prestin

Topic #3 ----- OP-SF NET 15.6 ----- November 15, 2008

From: Dan Lozier lozier@nist.gov
Subject: NIST Postdoc position in Special Functions

I wish to announce a postdoc opening in Special Functions at NIST in Gaithersburg, Maryland. Applicants must be U.S. citizens. The next application deadline is February 1, 2009. Interested individuals should contact me at lozier@nist.gov for further information before submitting an application. The NIST postdoc program is administered by the National Research Council. For general information about the program see <http://www.national-academies.org/rap> and <http://www.nist.gov/oiaa/postdoc.htm>.

The opening in Special Functions is connected with a multidisciplinary program of research and development that focuses on functions that have recognized or potential importance inscientific applications. The research opportunities include mathematical analysis, for example in asymptotics; numerical analysis; reliable computing, that is, with error bounds; numerical algorithms and software; symbolic algorithms and software; analysis and testing of software.

Topic #4 ----- OP-SF NET 15.6 ----- November 15, 2008

From: Tom Koornwinder T.H.Koornwinder@uva.nl
Subject: Allan M. Krall 1936-2008

Quoting <http://www.ams.org/ams/inmemory.html> :

“Krall, a Professor Emeritus at Penn State, died at his home in State College, PA, on July 4. He was 72. Over his career he published 130 research papers and 3 books, and in his later years his research focused on Sobolev Space boundary-value problems and their applications to orthogonal polynomials. Krall graduated from the State College Area High School in 1954 and received his bachelor's degree in mathematics in 1958 from Penn State. He received his master's and doctoral degrees in mathematics from the University of Virginia in 1960 and 1963, respectively. He joined Penn State's department of mathematics faculty in 1963, where he remained until his retirement in 1998. Krall was an AMS member since 1971.”

Krall's last book "Hilbert space, boundary value problems and orthogonal polynomials", Birkhäuser, 2002, MR1906664 pays a lot of attention to spectral problems for differential operators of fourth and higher order having orthogonal polynomials as eigenfunctions, and gives information on his earlier work on these problems.

Topic #5 ----- OP-SF NET 15.6 ----- November 15, 2008

From: Tom Koornwinder T.H.Koornwinder@uva.nl
Subject: On q-exponentials which are not q-series

As is well-known to everybody who has met q-special functions, the q-exponential functions are important examples of such functions. See the most elementary examples $e_q(z)$, $E_q(z)$ and $\exp_q(z)$ defined in Gasper & Rahman, Basic Hypergeometric Series (2004), (1.3.15), (1.3.16) and (1.3.26), and see the q-exponential function for the q-quadratic lattice in (1.3.31) there, with references to Ismail & Zhang (1994) and to Suslov's book "An Introduction to Basic Fourier Series" (2003). The functions $e_q(z)$ and $E_q(z)$ go back to Euler, and they are related to generating functions for partitions. They also play an important role in quantum groups, see for instance Floreanini & Vinet, "On the quantum group and quantum algebra approach to q-special functions", Lett. Math. Phys. 27 (1993), 179-190.

However, a more elementary q-exponential, namely the positive part of $1+(1-q)x$ raised to the power $1/(1-q)$ was introduced by C. Tsallis in 1994. When you type in MathSciNet, in the field "Anywhere", the phrase "Tsallis AND q-exponential" then you get 25 hits, which are spread over the years 1999-2007. These papers are in statistics and statistical mechanics. See for instance Schwämmle & Tsallis, "Two-parameter generalization of the logarithm and exponential functions and Boltzmann-Gibbs-Shannon entropy", J. Math. Phys. 48 (2007), 113301, and the references given there. It is unfortunate that the name q-exponential is also used in this sense, without any mention of the q-exponentials which are q-series.

Topic #6 ----- OP-SF NET 15.6 ----- November 15, 2008

From: Hans Haubold <hans.haubold@unoosa.org>
Subject: Book "Special Functions for Applied Scientists"

Here is information about a new book on special functions.

Special Functions for Applied Scientists

Mathai, A.M., Haubold, H.J.

Springer 2008, XXVI, 470 p. 10 illus., Hardcover

ISBN: 978-0-387-75893-0

For more information, see the web page

<http://www.springer.com/physics/book/978-0-387-75893-0>

Members of the Activity Group OP-SF will receive a free copy of the book, on request, by sending me an email in this respect.

Topic #7 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors
Subject: Gatteschi memorial volume

A special volume of Numerical Algorithms (Volume 49, Numbers 1-4 / December, 2008), Guest Editors Giampietro Allasia, Claude Brezinski and Michela Redivo-Zaglia, contains articles dedicated to the memory of Luigi Gatteschi. Here is the Table of Contents:

Biographic notes on Luigi Gatteschi

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Luigi Gatteschi-List of publications

Giampietro Allasia

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Closed-form evaluations of certain definite integrals by employing the Cauchy integral theorem
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Interlacing of the zeros of Jacobi polynomials with different parameters
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The zeros of the complementary error function
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Evaluation of q -gamma function and q -analogues by iterative algorithms
Bruno Gabutti and Giampietro Allasia
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Spectral transformations of measures supported on the unit circle and the Szegő transformation
Luis Garza, Javier Hernández and Francisco Marcellán
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The numerical evaluation of a challenging integral
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On a conjectured inequality for the largest zero of Jacobi polynomials
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Multivariate generalized Bernstein polynomials: identities for orthogonal polynomials of two variables
Stanisław Lewanowicz, Paweł Woźny, Iván Area and Eduardo Godoy
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Monotonic sequences related to zeros of Bessel functions
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Numerical evaluation of a fixed-amplitude variable-phase integral

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The symmetric D_ω -semi-classical orthogonal polynomials of class one

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Some new applications of truncated Gauss-Laguerre quadrature formulas

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The Dirichlet problem for the Laplace equation in a starlike domain of a Riemann surface

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Positivity of the weights of interpolatory quadrature formulae with Bernstein-Szegő abscissae

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Global asymptotic expansions of the Laguerre polynomials—a Riemann-Hilbert approach

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Orthogonal polynomials—centroid of their zeroes

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Interlacing of the zeros of contiguous hypergeometric functions

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Nontensorial Clenshaw-Curtis cubature

Alvise Sommariva, Marco Vianello and Renato Zanovello
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Topic #8 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors

Subject: Contemporary Mathematics volume on Special Functions and Orthogonal Polynomials

Special Functions and Orthogonal Polynomials

Edited by: Diego Dominici, State University of New York at New Paltz, NY, and Robert S.

Maier, University of Arizona, Tucson, AZ
Contemporary Mathematics vol 471 AMS, 2008, 218 pp., Softcover,
ISBN-10: 0-8218-4650-7, ISBN-13: 978-0-8218-4650-6.

From the AMS website:

This volume contains fourteen articles that represent the AMS Special Session on Special Functions and Orthogonal Polynomials, held in Tucson, Arizona in April of 2007. It gives an overview of the modern field of special functions with all major subfields represented, including: applications to algebraic geometry, asymptotic analysis, conformal mapping, differential equations, elliptic functions, fractional calculus, hypergeometric and q -hypergeometric series, nonlinear waves, number theory, symbolic and numerical evaluation of integrals, and theta functions. A few articles are expository, with extensive bibliographies, but all contain original research.

This book is intended for pure and applied mathematicians who are interested in recent developments in the theory of special functions. It covers a wide range of active areas of research and demonstrates the vitality of the field.

Contents:

Fractional integration and fractional differentiation for d -dimensional Jacobi expansions
Cristina Balderrama and Wilfredo O. Urbina R. 1

Sutherland-type trigonometric models, trigonometric invariants, and multivariate polynomials
K. G. Boreskov, A. V. Turbiner, and J. C. L'opez Vieyra 15

Polynomials associated with partitions: Asymptotics and zeros
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A generating function for the N -soliton solutions of the Kadomtsev-Petviashvili II equation
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Asymptotics of the second Painlev'e equation
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Evaluation of certain Mellin transformations in terms of the trigamma and polygamma functions
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Conformal maps to generalized quadrature domains
Darren Crowdy and Jonathan Marshall 105

Approximations for zeros of Hermite functions
'Arp'ad Elbert and Martin E. Muldoon 117

Inequalities and bounds for elliptic integrals, II
Haseeb Kazi and Edward Neuman 127

P-symbols, Heun identities, and $3F_2$ identities
Robert S. Maier 139

An iterative method for numerical integration of rational functions
Dante Manna and Victor H. Moll 161

A Taylor expansion theorem for an elliptic extension of the Askey-Wilson operator
Michael J. Schlosser 175

Ramanujan's symmetric theta functions in his Lost Notebook
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Integral representations for products of Airy functions and their fractional derivatives
Vladimir Varlamov 203

Topic #9 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors
Subject: Preprints in arXiv.org

The following preprints related to the fields of orthogonal polynomials and special functions were posted or cross-listed to one of the subcategories of arXiv.org mostly during September and October 2008.

<http://arxiv.org/abs/0808.3852v1>

Gibbs Sampling, Exponential Families and Orthogonal Polynomials
Authors: Persi Diaconis, Kshitij Khare, Laurent Saloff-Coste

<http://arxiv.org/abs/0808.3864v1>

Rejoinder: Gibbs Sampling, Exponential Families and Orthogonal Polynomials
Authors: Persi Diaconis, Kshitij Khare, Laurent Saloff-Coste

<http://arxiv.org/abs/0808.3859v1>

Comment: Lancaster Probabilities and Gibbs Sampling
Author: Gerard Letac

<http://arxiv.org/abs/0809.5203>

Tables of the Appell Hypergeometric Functions ${}_2F_2$
Authors: Jonathan Murley, Nasser Saad

<http://arxiv.org/abs/0809.4696>

A new algorithm for the recursion of multisums with improved universal denominator
Authors: Stavros Garoufalidis, Xinyu Sun

<http://arxiv.org/abs/0809.4232>

Bounded harmonic functions for the Heckman--Opdam Laplacian

Authors: [Bruno Schapira](#) (LM-Orsay)

<http://arxiv.org/abs/0809.2574>

Elliptic hypergeometric Laurent biorthogonal polynomials with a dense point spectrum on the unit circle

Authors: [S.Tsujimoto](#), [A.Zhedanov](#)

<http://arxiv.org/abs/0809.2485>

Improved analytical approximation to arbitrary l-state solutions of the Schrodinger equation for the hyperbolical potentials

Authors: [Sameer M. Ikhdair](#), [Ramazan Sever](#)

<http://arxiv.org/abs/0809.2127>

Generalized Whittaker functions for degenerate principal series of $GL(4, \mathbb{R})$

Authors: [Kazuki Hiroe](#)

<http://arxiv.org/abs/0810.3879>

Integrable pseudopotentials related to elliptic curves

Authors: [Alexander Odesskii](#), [Vladimir Sokolov](#)

<http://arxiv.org/abs/0810.3796>

Applications of the operator $H(\alpha, \beta)$ to the Humbert double hypergeometric functions

Authors: [A. Hasanov](#)

<http://arxiv.org/abs/0810.3238>

Hypergeometric functions, their epsilon expansions and Feynman diagrams

Authors: [M. Yu. Kalmykov](#) (Hamburg U., Inst. Theor. Phys. II & Dubna, JINR), [Bernd A. Kniehl](#) (Hamburg U., Inst. Theor. Phys. II), [B.F.L. Ward](#) (Baylor U.), [S.A. Yost](#) (Citadel Military Coll.)

<http://arxiv.org/abs/0810.2766>

Schlesinger transformations for algebraic Painleve VI solutions

Authors: [Raimundas Vidunas](#), [Alexander V. Kitaev](#)

<http://arxiv.org/abs/0810.2636>

Some decomposition formulas of generalized hypergeometric functions and formulas of an analytic continuation of the Clausen function

Authors: [A.Hasanov](#)

<http://arxiv.org/abs/0810.2632>

Applications of an operator $H(\{\alpha, \beta\})$ to the Lauricella multivariable hypergeometric functions

Authors: [A.Hasanov](#)

<http://arxiv.org/abs/0810.1829>

Representation of solutions of the Gauss hypergeometric equation by the multiple polylogarithms, functional relations of the multiple polylogarithms and relations of the multiple zeta values

Authors: [Shu Oi](#)

<http://arxiv.org/abs/0810.1554>

Eigenvalue Separation in Some Random Matrix Models

Authors: [Kevin E. Bassler](#), [Peter J. Forrester](#), [Norman E. Frankel](#)

<http://arxiv.org/abs/0810.0518>

Coxeter group actions on $4F_3(1)$ hypergeometric series

Authors: [Marc Formichella](#), [R.M. Green](#), [Eric Stade](#)

<http://arxiv.org/abs/0810.5425>

Density of eigenvalues and its perturbation invariance in unitary ensembles of random matrices

Authors: [Dang-Zheng Liu](#), [Zheng-Dong Wang](#), [Kui-Hua Yan](#)

<http://arxiv.org/abs/0810.3702>

Interlacing and non-orthogonality of spectral polynomials for the Lamé operator

Authors: [A. Bourget](#), [T. McMillen](#), [A. Vargas](#)

<http://arxiv.org/abs/0810.3232>

The Combinatorics of Al-Salam-Chihara q -Laguerre polynomials

Authors: [Anisse Kasraoui](#), [Dennis Stanton](#), [Jiang Zeng](#)

<http://arxiv.org/abs/0810.2586>

Total integrals of global solutions to Painlevé II

Authors: [Jinho Baik](#), [Robert Buckingham](#), [Jeffery DiFranco](#), [Alexander Its](#)

<http://arxiv.org/abs/0809.4936>

A note on random orthogonal polynomials on a compact interval

Authors: [M. Birke](#), [H. Dette](#)

<http://arxiv.org/abs/0809.4601>

Random block matrices and matrix orthogonal polynomials

Authors: [Holger Dette](#), [Bettina Reuther](#)

<http://arxiv.org/abs/0809.3970>

On the Christoffel-Darboux kernel for random Hermitian matrices with external source

Authors: [Jinho Baik](#)

<http://arxiv.org/abs/0809.3641>

On a Pollaczek-Jacobi type orthogonal polynomials

Authors: [Yang Chen](#), [Dan Dai](#)

<http://arxiv.org/abs/0809.3421>

Sub-exponentially localized kernels and frames induced by orthogonal expansions

Authors: [Kamen Ivanov](#), [Pencho Petrushev](#), [Yuan Xu](#)

<http://arxiv.org/abs/0809.3122>

An orthogonality relation for multivariable Bessel polynomials

Authors: [Martin Hallnäs](#)

<http://arxiv.org/abs/0809.2255>

The Nevai Condition

Authors: [Jonathan Breuer](#), [Yoram Last](#), [Barry Simon](#)

<http://arxiv.org/abs/0809.1431>

Multivariate Jacobi and Laguerre polynomials, infinite-dimensional extensions, and their probabilistic connections with multivariate Hahn and Meixner polynomials

Authors: [Robert C. Griffiths](#), [Dario Spanò](#)

<http://arxiv.org/abs/0809.3277>

On representations and differences of Stieltjes coefficients, and other relations

Authors: [Mark W. Coffey](#)

<http://arxiv.org/abs/0810.5077>

Alternative evaluation of a $\ln \tan$ integral arising in quantum field theory

Authors: [Mark W. Coffey](#)

<http://arxiv.org/abs/0809.1889>

The Beta Generalized Exponential Distribution

Authors: [Wagner Barreto-Souza](#), [Alessandro H. S. Santos](#), [Gauss M. Cordeiro](#)

<http://arxiv.org/abs/0810.3273>

Finite Gap Jacobi Matrices, I. The Isospectral Torus

Authors: [Jacob S. Christiansen](#), [Barry Simon](#), [Maxim Zinchenko](#)

<http://arxiv.org/abs/0810.3275>

Schrodinger Operators with Purely Discrete Spectrum

Authors: [Barry Simon](#)

<http://arxiv.org/abs/0810.3277>

Bulk Universality and Clock Spacing of Zeros for Ergodic Jacobi Matrices with A.C. Spectrum

Authors: [Artur Avila](#), [Yoram Last](#), [Barry Simon](#)

<http://arxiv.org/abs/0809.2420>

Toeplitz and Hankel determinants with singularities: announcement of results

Authors: [P. Deift](#), [A. Its](#), [I. Krasovsky](#)

<http://arxiv.org/abs/0809.3970>

On the Christoffel-Darboux kernel for random Hermitian matrices with external source

Authors: [Jinho Baik](#)

<http://arxiv.org/abs/0810.2247>

The q -Log-convexity of the Generating Functions of the Squares of Binomial Coefficients

Authors: [William Y. C. Chen](#) (Nankai Univ.), [Robert L. Tang](#) (Nankai Univ.), [Larry X. W. Wang](#) (Nankai Univ.), [Arthur L. B. Yang](#) (Nankai Univ.)

<http://arxiv.org/abs/0810.4356>

On the Chebyshev properties of system of eigenfunctions for Sturm--Liouville problem with singular coefficients

Authors: [A.A.Vladimirov](#)

<http://arxiv.org/abs/0810.4095>

On the oscillation properties of eigenfunctions of Sturm--Liouville problem with singular coefficients

Authors: [A.A.Vladimirov](#)

<http://arxiv.org/abs/0810.1329>

Accuracy of the Tracy-Widom limit for the largest eigenvalue in white Wishart matrices

Authors: [Zongming Ma](#)

<http://arxiv.org/abs/0809.5116>

A method to calculate correlation functions for $\beta=1$ random matrices of odd size

Authors: [Peter J. Forrester](#), [Anthony Mays](#)

<http://arxiv.org/abs/0809.4601>

Random block matrices and matrix orthogonal polynomials

Authors: [Holger Dette](#), [Bettina Reuther](#)

<http://arxiv.org/abs/0810.3327>

Falling Factorials, Generating Functions, and Conjoint Ranking Tables

Authors: [Brad Osgood](#), [William Wu](#)

<http://arxiv.org/abs/0810.4558>

The J -matrix method: a survey of tridiagonalization

Authors: [Mourad E.H. Ismail](#), [Erik Koelink](#)

<http://arxiv.org/abs/0809.2501>

Irrationality proof of a q -extension of $\zeta(2)$ using little q -Jacobi polynomials

Authors: [Christophe Smet](#), [Walter Van Assche](#)

<http://arxiv.org/abs/0810.4434>

Factorization of number into prime numbers viewed as decay of particle into elementary particles conserving energy

Authors: [Akio Sugamoto](#)

<http://arxiv.org/abs/0810.2847>

Spectral Theory of the Riemann Zeta-Function: Chapter 6: Appendix

Authors: [Yoichi Motohashi](#)

<http://arxiv.org/abs/0810.2103>

A Proof for the Density Hypothesis

Authors: [Yuan-You Fu-Rui Cheng](#)

<http://arxiv.org/abs/0810.2102>

A "very possible" Proof for the Riemann Hypothesis

Authors: [Yuan-You Fu-Rui Cheng](#)

<http://arxiv.org/abs/0810.0789>

Toward zeta functions and complex dimensions of multifractals

Authors: [Michel L. Lapidus](#), [John A. Rock](#)

<http://arxiv.org/abs/0809.5120>

Proof of Riemann's zeta-hypothesis

Authors: [Arne Bergstrom](#)

<http://arxiv.org/abs/0809.5110>

Weighted sum formula for multiple zeta values

Authors: [Li Guo](#), [Bingyong Xie](#)

<http://arxiv.org/abs/0809.2074>

Character Average of Second and Fourth Powers of Dirichlet L-Series at Unity

Authors: [Vivek V. Rane](#)

<http://arxiv.org/abs/0809.1854>

Divisor Problem and an Analogue of Euler's Summation Formula

Authors: [Vivek V. Rane](#)

<http://arxiv.org/abs/0809.1601>

Lagrangians with Riemann Zeta Function

Authors: [Branko Dragovich](#)

<http://arxiv.org/abs/0809.2967>

Prime numbers in logarithmic intervals

Authors: [D. Bazzanella](#), [A. Languasco](#), [A. Zaccagnini](#)

<http://arxiv.org/abs/0809.1482>

On Algebraic Solutions to Painleve VI

Authors: [Katsunori Iwasaki](#)

<http://arxiv.org/abs/0809.1000>

A phase transition for non-intersecting Brownian motions, and the Painlevé II equation

Authors: [Steven Delvaux](#), [Arno B.J. Kuijlaars](#)

<http://arxiv.org/abs/0810.4820>

Densities, Laplace Transforms and Analytic Number Theory

Authors: [Sibusiso Sibisi](#)

<http://arxiv.org/abs/0810.3587>

Notes de lecture de l'article "Partial sums of the Möbius function" de Kannan Soundararajan

Authors: [Michel Balazard](#) (IML), [Anne De Roton](#) (IECN)

<http://arxiv.org/abs/0810.5581>

Direct "Delay" Reductions of the Toda Equation

Authors: [Nalini Joshi](#)

<http://arxiv.org/abs/0810.3112>

Middle convolution and Heun's equation

Authors: [Kouichi Takemura](#)

<http://arxiv.org/abs/0810.0058>

Lax forms of the q -Painlevé equations

Authors: [Mikio Murata](#)

<http://arxiv.org/abs/0809.4873>

Algebraic solutions of the sixth Painlevé equation

Authors: [Oleg Lisovyy](#), [Yuriy Tykhyy](#)

<http://arxiv.org/abs/0810.2731>

Fix-Euler-Mahonian statistics on wreath products

Authors: [Hilarion L. M. Faliharimalala](#), [Jiang Zeng](#)

Topic #10 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors

Subject: About the Activity Group

The SIAM Activity Group on Orthogonal Polynomials and Special Functions consists of a broad set of mathematicians, both pure and applied. The Group also includes engineers and scientists, students as well as experts. We have around 140 members scattered about in more than 20 countries. Whatever your specialty might be, we welcome your participation in this classical, and yet modern, topic. Our WWW home page is:

<http://math.nist.gov/opsf/>

This is a convenient point of entry to all the services provided by the Group. Our Webmaster is Bonita Saunders (bonita.saunders@nist.gov).

The Activity Group sponsors OP-SF NET, which is transmitted periodically by SIAM. It is provided as a free public service; membership in SIAM is not required. The OP-SF Net Editors are Diego Dominici (dominicd@newpaltz.edu) and Martin Muldoon (muldoon@yorku.ca).

To receive the OP-SF NET, send your name and email address to poly-request@siam.org.

Back issues can be obtained at the WWW addresses:

<http://staff.science.uva.nl/~thk/opsfnet>

<http://www.math.ohio-state.edu/JAT/DATA/OPSFNET/opsfnet.html>

<http://cio.nist.gov/esd/emaildir/lists/opsfnet/maillist.html>

For several years the Activity Group sponsored a printed Newsletter, most recently edited by Rafael Yanez. Back issues are accessible at:

<http://www.mathematik.uni-kassel.de/~koepf/siam.html>

Given the widespread availability of email and the Internet, the need for the printed Newsletter has decreased. Discussions are underway concerning whether an annual printed Newsletter or Annual Report should be instituted.

SIAM has several categories of membership, including low-cost categories for students and residents of developing countries. For current information on SIAM and Activity Group membership, contact:

Society for Industrial and Applied Mathematics

3600 University City Science Center

Philadelphia, PA 19104-2688 USA

phone: +1-215-382-9800

email: service@siam.org

WWW : <http://www.siam.org>

<http://www.siam.org/membership/outreachmem.htm>

Finally, the Activity Group operates an email discussion group, called OP-SF Talk. To subscribe, send the email message

subscribe opsftalk Your Name

to listproc@nist.gov. To contribute an item to the discussion, send email to opsftalk@nist.gov. The archive of all messages is accessible at:

<http://math.nist.gov/opsftalk/archive>

Topic #11 ----- OP-SF NET 15.6 ----- November 15, 2008

From: OP-SF NET Editors
Subject: Submitting contributions to OP-SF NET

To contribute a news item to OP-SF NET, send email to poly@siam.org with a copy to one of the OP-SF Editors dominicc@newpaltz.edu or muldoon@yorku.ca . Contributions to OP-SF NET 16.1 should be sent by January 1, 2009.

OP-SF NET is a forum of the SIAM Activity Group on Special Functions and Orthogonal polynomials. We disseminate your contributions on anything of interest to the special functions and orthogonal polynomials community. This includes announcements of conferences, forthcoming books, new software, electronic archives, research questions, job openings.

Send submissions to: poly@siam.org
Subscribe by mailing to: poly-request@siam.org
or to: listproc@nist.gov

Back issues can be obtained at the WWW addresses:

<http://staff.science.uva.nl/~thk/opsfnet>
<http://www.math.ohio-state.edu/JAT/DATA/OPSFNET/opsfnet.html>
<http://math.nist.gov/opsfnet/archive>

WWW home page of this Activity Group:

<http://math.nist.gov/opsf/>

Information on joining SIAM and this activity group: service@siam.org

The elected Officers of the Activity Group (2008-2010) are:

Francisco J. Marcellán , Chair
Peter A. Clarkson, Vice Chair
Daniel W. Lozier, Secretary
Peter A. McCoy, Program Director

The appointed officers are:

Diego Dominici, OP-SF NET co-editor
Martin Muldoon, OP-SF NET co-editor
Bonita Saunders, Webmaster